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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/508,604	03/14/2000	KAZUHIRO TAKAHASHI	DAIN550	9144

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PARKHURST WENDEL
1421 PRINCE STREET
SUITE 210
ALEXANDRIA, VA 22314-2895

EXAMINER	
NGUYEN, KIMBERLY T	
ART UNIT	PAPER NUMBER

1774 8
DATE MAILED: 01/16/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

T-D-8

Office Action Summary

Application No.

09/508,604

Applicant(s)

TAKAHASHI ET AL.

Examiner

Kimberly T. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 November 2001.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

This action is in response to the amendment submitted on November 6, 2001.

Claim Rejections - 35 USC § 112

Due to the amendment submitted on November 6, 2001, the rejections based upon 35 U.S.C. 112 are withdrawn.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office Action.

Claims 1-6 and 29-35 are rejected under 35 U.S.C 103(a) as being unpatentable over Manning et al., U.S. Pat. No. 4,916,007 in view of Takahashi et al., U.S. Pat. No. 6,040,044 for the reasons set forth in the previous Office Action, mailed on July 6, 2001.

Claims 7-15 are rejected under 35 U.S.C 103(a) as being unpatentable over Sato et al., U.S. Pat. No. 5,665,457 in view of Takahashi et al., U.S. Pat. No. 6,040,044 for the reasons set forth in the previous Office Action, mailed on July 6, 2001.

Claims 16-28 and 36-41 are rejected under 35 U.S.C 103(a) as being unpatentable over Manning et al., U.S. Pat. No. 4,916,007 in view of Takahashi et al., U.S. Pat. No. 6,040,044 in further view of Skinner, U.S. Pat. No. 4,087,400.

Manning shows a decorative sheet with a paper substrate, an optional first layer composed of a resinous polymer composition, synthetic resins, polyvinyl chloride homopolymer resins, or polyurethanes (ionizing radiation curable resins) (first sealer layer) (column 4, lines 41-63), a pattern or design printed layer (Abstract), a second layer composed of a resinous polymer

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composition, *copolymers of vinyl chloride*, or vinyl resins other than a plastisol or organosol (ionizing radiation curable resins) (undercoat/stress-relaxing layer or second sealer layer) (column 6, lines 26-31), and an optional overcoat of acrylates and methacrylates (protective layer or top coat) (column 10, lines 37-40 and column 4, lines 54-60). Manning shows that the second layer of resinous polymer composition is 76 micrometers to 1,016 micrometers (column 6, lines 13-17). Manning shows that the overcoat comprises plastisol, wear resistant polyurethanes, such as those polyisocyanates and ethylene diisocyanate (ionizing radiation curable resins) also shown in Skinner (column 2, lines 57-69), and other resins suitable for use as a top coating (column 10, lines 37-68 to column 11, lines 1-2).

Manning does not show that the total thickness of the layers is not more than 50 micrometers as in instant claim 21. Thickness is a property which can be easily determined by one of ordinary skill in the art. With regard to the limitation of the thickness, absent a showing of unexpected results, it is obvious to modify the conditions of a composition because they are merely the result of routine experimentation. The experimental modification of prior art in order to optimize operating conditions (e.g. thickness) fails to render claims patentable in the absence of unexpected results.

Manning does not show the yield and breaking strengths as in instant claims 38-41. However, yield and breaking strengths are functions of the polymers used. Since Manning uses the same polymers in the same manner as Applicant uses them, the same properties would be expected, absent any evidence to the contrary.

Response to Arguments

Applicant's arguments filed November 6, 2001 have been fully considered but they are not persuasive.

On pages 12-14, Applicants argue that the references do not teach the claimed concept of designating particular layers as a layer to relax shrinking stress caused during formation of an ionizing radiation-cured resin. Though the references do not specifically identify the layers as a stress relaxing layer, such a designation is merely a "claimed concept" as Applicants have stated and are functions of the compositions used in the layers. Since the references use the same compositions and resins in the same manner as Applicants use them, the same properties (i.e. stress relaxing) would be expected, absent any evidence to the contrary. In addition, merely designating a layer or layers as a stress relaxing layer is not novel.

On pages 14-16, Applicants argue that Manning nor the secondary reference do not teach or suggest an essential aspect of the claimed invention and directs the examiner to the examples beginning on page 73 and particularly pages 99-101. Applicants have not explained how the examples teach any essential aspects of the instant invention and conclusory state that the record contains evidence of patentability. It is not clear how the examples and tables show evidence of patentability.

On pages 15-16, Applicants argue that Sato and Takahashi are silent as to a top coat formed of an ionizing radiation curable resin and a substrate coating for inhibiting penetration of the ionizing radiation curable resin and for relaxing stress.

Takahashi shows that ionizing-radiation curing resins are used as overcoat materials to cover the surface of decorative materials (column 1, lines 19-23). Sato also shows a layer of

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acrylic resin as a penetration-inhibiting coating (column 2, lines 36-39) of which Applicants also show on page 48, lines 3-12 that acrylic resins are used as a penetration-inhibiting coating.

Though the references do not specifically identify a substrate coating as a stress relaxing layer, such a designation is merely a "claimed concept" as Applicants have stated and are functions of the compositions used in the layers. Since the references use the same compositions and resins in the same manner as Applicants use them, the same properties (i.e. stress relaxing) would be expected, absent any evidence to the contrary. In addition, merely designating a layer as a stress relaxing layer is not novel.

Conclusion

APPLICANT'S AMENDMENT necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly Nguyen whose telephone number is (703) 308-8176. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly can be reached on (703) 308-0449. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for before final communications and (703) 872-9311 for after final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Kimberly T. Nguyen
Examiner
Art Unit 1774

CYNTHIA H. KELLY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700

